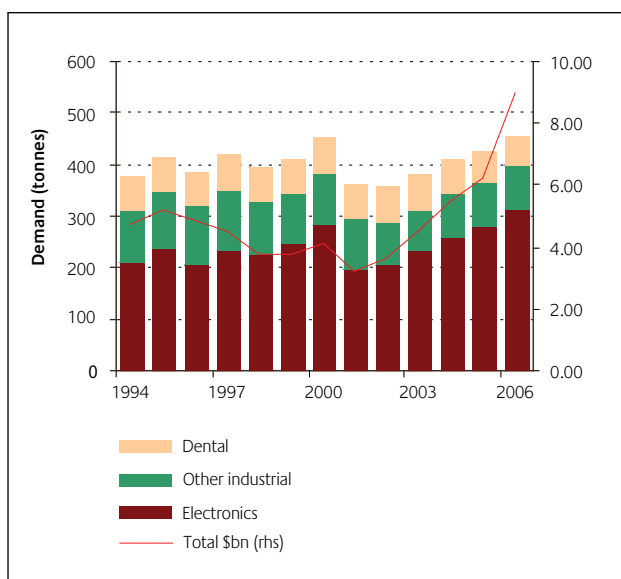


Gold in the News

Industrial Demand for Gold Highest Ever

Industrial and dental demand reached a new record in both tonnage and dollar terms in 2006. Tonnage figures, up 7% on 2005 at 458 tonnes, just outstripped the previous record in 2000. This was due to vibrant demand from the electronics sector, which also established new annual records, rising 11% in tonnage terms to 312 tonnes. In dollar terms the year on year increases were 45% for the category as a whole and 51% for electronics.

The growth in electronics was primarily due to heavy demand from a range of consumer goods containing electronic circuitry, supported by strong global GDP growth. This was caused both as a result of newer goods, such as MP3 players or flat screen televisions, establishing themselves in the market place, or by greater use for gold in traditional goods such as automobiles as a result of improved quality and efficiency of components using gold. These gains primarily took place in East Asia, including Japan, and to a lesser extent the United States.



Source: GFMS, WGC calculations based on GFMS data

EDITOR'S NOTE

From this issue onwards, catalysis and nano technology news can be found in the newsletters CatGold and NanoGold News, published within Gold Bulletin.

Gold Phase Change

An international team of researchers from Germany, France and Sweden have presented results on gold phase change in Physical Review Letters.

At ambient pressure gold has been known to remain stable in a cubic crystalline phase to at least 180 GPa. Large pressure and temperature stability of the cubic gold phase and its high isothermal compressibility make gold an ideal material to be used as a pressure marker at high pressure - high temperature experiments at pressures above 100 GPa.

Scientists from the Bayerisches Geoinstitut and the University of Heidelberg (Germany), together with researchers from Sweden and the ESRF (France) have detected for the first time a phase transformation in gold. The experiments have shown that at pressures above ~240 GPa gold adopts an hexagonal-close packed structure. In order to carry out their experiments, scientists used two beamlines of the ESRF combined with a new instrument at the Bayerisches Geoinstitut. The sample was placed inside a diamond anvil cell, which was then electrically heated externally. This allowed them to study gold at the pressures of the Earth's core, that is, at a depth of 5500 km from the surface.

Coated Gold Bonding Wire Production

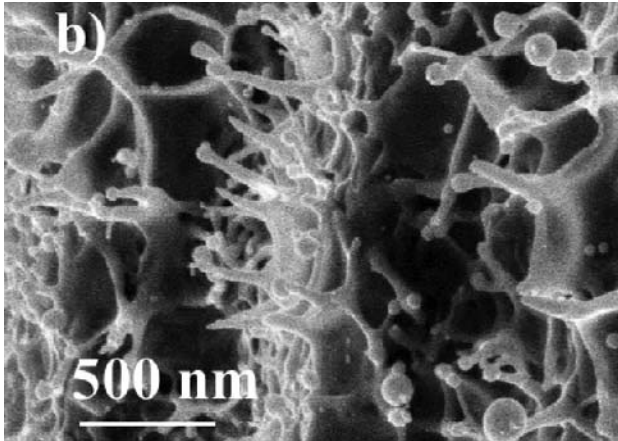
Leading gold bonding wire supplier, Tanaka Denshi Kogyo, has announced that a link up with insulation for bonding wires inventor, Microbonds, is progressing well. John Scott, CEO of Microbonds, said: "We are pleased to have met our objective of having Tanaka Denshi be production capable for X-Wire production from its Saga, Japan, facilities as scheduled." X-Wire is set to become available during 2007 and it offers an interconnect solution that relies on proprietary insulation being added to bare bonding wires. This new product will enable people to bring interconnect bonding wires into contact with each other without shorting the circuit.

Golden Eye

The body of a 5,000-year-old woman with an artificial golden eye has been discovered in Iran. Archaeologists found the body of the ancient Persian woman, at an ancient necropolis at Shahr-i-Sokhta in the Sistan desert. It is thought that the artificial eye might have used to make it glitter spectacularly, giving the woman a mysterious and supernatural gaze. The golden eyeball is a half-sphere with a diameter of just over an inch and made from lightweight material thought to be derived from bitumen paste, which is painted gold.

Laser Ablation to Form 'Black' Gold

Recent experimental results have shown that optical properties of gold surfaces can be significantly modified by surface structuring with femtosecond laser processing. This laser ablation to form 'black' gold surfaces, was reported in Optics & Photonics News, February 2007 and was conducted by Chunlei Guo, Assistant Professor, The Institute of Optics, University of Rochester, USA.



Blackened Gold Surface, Courtesy of Chunlei Guo, University of Rochester